

# Natural Resources and Environmental Issues

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Volume 12 *University Education in Natural Resources*

Article 8

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2004

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### Recommended Citation

Phillips, Victor D. (2004) "Building intercontinental learning bridges in natural resources education for diverse cultures," *Natural Resources and Environmental Issues*: Vol. 12 , Article 8.

Available at: <https://digitalcommons.usu.edu/nrei/vol12/iss1/8>

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## **Building Intercontinental Learning Bridges in Natural Resources Education for Diverse Cultures**

Victor D. Phillips<sup>1</sup>

**ABSTRACT:** Natural resources education for a culturally diverse audience is central to the mission of the Global Environmental Management Education Center (GEM) in the College of Natural Resources at the University of Wisconsin-Stevens Point. GEM's purpose is to pioneer and apply practical learning methods and technology to solve natural resource problems by linking faculty, students and citizens worldwide. Building on mutual interests and joint collaboration, GEM and its international partners exchange ideas, personnel, and curricula, develop models for community involvement in sustainable development, and conduct applied research and outreach education in a variety of natural resource-based fields of endeavor.

This paper describes how GEM and its partners overseas are operationalizing United Nations Millennium Development Goals on the ground in culturally adapted and locally accepted demonstration projects. Examples of such natural resources education for diverse cultures include an international field-based seminar in Wisconsin on watershed management for watershed managers from around the world; a demonstration project of watershed catchment monitoring and water allocation in South Africa; a project on dietetics and small garden systems to support medical treatment and food security for families impacted by HIV/AIDS in Kenya; a community based ecotourism, land use planning and watershed management project in Mexico; a rural leadership and community development twinning study on water resources between Wisconsin and the Peoples Republic of China; an international student exchange and internship program between several U.S. and European universities on sustainable forestry; a conservation and environmental sciences educational curriculum project and teacher exchange between Wisconsin and Puerto Rico; and a GEM Student Ambassador Program for international learning.

### INTRODUCTION

Diversity is a good thing. In nature, the myriad components, connections, and complexities of the natural resource base of the planetary life support system sustain our existence. In human society, diversity— cultural, social, political, economic, racial, gender, and other forms— enriches humanity and its various organizational structures with fresh ideas, broad perspectives, and new insights. In healthy democratic societies, diversity empowers and drives civilized society forward to improve the human condition, e.g., enhance knowledge, teach tolerance, provide access and opportunity, build peace and protect civil rights of minority opinions and groups. Because societal benefits of

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diversity are so strong, increasing democratization is sweeping the globe at many levels including governments and their agencies, universities, business and industry, and other organizations. The careful and vigilant protection of diversity is the hallmark of democratic success and freedom to live fully and to optimize human potential. Diversity provides great cause for celebration because it is the source of vitality and richness that sustains the spirit of and progress in human civilization.

This paper focuses on increasing diversity by building intercontinental learning bridges in natural resources education for diverse cultures. International programming, study abroad, student and faculty exchanges overseas, and collaborative applied research and outreach education with foreign partners in local communities offer a highly effective means for increasing diversity and helping build a sustainable future. Examples are featured from the Global Environmental Management Education Center (GEM) within the College of Natural Resources (CNR) at the University of Wisconsin-Stevens Point (UWSP) and its partners.

#### GEM ACTIONS ON U.N. MILLENNIUM DEVELOPMENT GOALS

The United Nations Millennium Development Goals (MDG) are an ambitious international effort for reducing poverty and improving lives, which provides a pathway to attaining sustainable development. Core human values and actions to implement sustainable development must reflect locally relevant and culturally appropriate visions for a world that “meets the needs of the present without compromising the ability of future generations to meet their own needs” (World Commission on Sustainable Development 1987). Kofi Annan, U.N. Secretary General, has stated, “Our biggest challenge in this new century is to take an idea that sounds abstract – sustainable development – and turn it into reality for all the world’s people” (United Nations 2001). Making the abstract real, and developing the capacities of individuals and societies to work together for a sustainable future is, essentially, an educational enterprise.

GEM is a highly successful educational enterprise based on strength of the UWSP College of Natural Resources, which has comprehensive offerings in environmental education, forestry, human dimensions of natural resource management, paper science, soil and waste resources, water resources and wildlife. The first conservation education major in the nation was established by Fred Schmeckle at UWSP in 1946 during the Aldo Leopold era. The largest undergraduate institution of natural resources and environmental management (over 1300 baccalaureate and 150 graduate students) in the U.S., CNR has a virtual army of eager, well-trained students and outstanding faculty who are extending the reach of excellent CNR curriculum and outreach programming via GEM to help build capacity in the U.S. and overseas. A linkage of CNR instructional and extension approaches to providing the best possible education and services to our clients—students and stakeholders—are accomplished through Centers within the College. Examples include the Wisconsin Center for Environmental Education, the

Center for Land Use Education, the Center for Watershed Science and Education, and GEM, with others planned. CNR faculty, undergraduate and graduate students participate in GEM programs. Of note at UWSP, CNR offers Masters Degree opportunities to both outbound and returning U.S. Peace Corps volunteers.

GEM educators themselves and the learners they educate here and abroad are moving the vision of sustainable development to reality. Through education, GEM and its partners overseas foster the values, behavior and lifestyles, as well as technical and communication skills required to create a sustainable future. GEM is operationalizing MDGs by implementing practical, applied community driven development projects on the ground. GEM transforms lofty international policy guidelines into tangible, real world results catalyzed by empowering local citizens as agents of change working together.

Of the eight United Nations Millennium Development Goals listed in Table 1, GEM is contributing directly to achieving MDG #7, Ensure environmental stability, through most of its activities. Additionally, contributions by specific GEM program activities address MDG #1, Achieve universal primary education, MDG #3, Promote gender equality and empower women, and MDG #6, Combat HIV/AIDS, malaria and other diseases, as well as help indirectly via GEM international programming with positive impacts on the remaining sustainability goals.

Table 1. United Nations Millennium Development Goals.

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Eradicate extreme poverty and hunger  
 Achieve universal primary education  
 Promote gender equality and empower women  
 Reduce child mortality  
 Improve maternal health  
 Combat HIV/AIDS, malaria and other diseases  
 Ensure environmental stability  
 Develop a global partnership for development

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#### GEM AND U.N. DECADE OF EDUCATION FOR SUSTAINABLE DEVELOPMENT

To those of us in academia at all levels, the United Nations Decade of Education for Sustainable Development (DESD), January 2005-December 2014 is an inspired opportunity to effect change. As educators, our primary responsibility is to instill hope for the future, and to equip learners with knowledge that enables them to act as agents of change in building a better future. This is our decade to make a difference. Let's do it.

A plan for doing so is outlined in a Framework for a Draft International Implementation Scheme for the DESD developed by UNESCO (2003). It builds on the Dakar Framework for Action adopted at the World Education Forum and the UN Literacy Decade. Descriptive highlights of the framework are provided in three sections below.

### Section 1

Section 1 elaborates the nature of education for sustainable development to address poverty alleviation, gender equality, health promotion, the conservation and protection of the natural resources base upon which social and economic development depends, rural transformation, human rights, peace, international understanding, cultural and linguistic diversity and the potential of information communication and technology.

The Dakar Framework for Action sees education as ‘the key’ to sustainable development as the basic economic and social infrastructure for sustainable development. It calls for educational strategies to build peace, hope, stability, tolerance and mutual understanding as a platform for sustainable development. Literacy for all is at the heart of ensuring sustainable development, peace and democracy. Environmental literacy is the capacity to understand the interdependence and fragility of planetary life support systems and the natural resource base upon which human well-being depends, and to identify root causes of threats to sustainable development and the values, motivations and skills to address them. Cultural diversity—our rich diversity of domestic and international human cultures—is our collective strength.

### Section 2

Section 2 describes a partnership approach to the development of an international implementation scheme for the DESD at the subnational, national, regional, and international levels. Emphasis is placed upon supporting initiatives at the local level and ensuring that structures at the national, regional and international levels provide direction and guidance for local initiatives.

Ultimately the DESD aims to have education for sustainable development implemented worldwide at the local level. Because there are many diverse cultures and methods, a one-size-fits-all approach is strongly discouraged. Networking and partnerships that result in demonstration projects and activities for adaptation in locally relevant and culturally appropriate ways can catalyze participation, ownership and commitment to achieving DESD objectives successfully through a ‘bottom-up’ approach.

### Section 3

Section 3 proposes a schedule of activities aimed at catalyzing world society for action in communication and advocacy and building momentum, partnerships and support.

## GEM EFFORTS IN DECADE OF EDUCATION FOR SUSTAINABLE DEVELOPMENT

The purpose of the GEM Education Center is pioneering and applying practical learning methods and technology to solve natural resource problems by linking faculty, students and citizens worldwide. GEM utilizes ‘twinning studies’ of U.S.-based and foreign-based natural resources management problems that different nations and communities have in common, e.g., forest fragmentation, water quality degradation, or affordable energy. Participants from different cultures and backgrounds share and learn from each other, and adapt their new knowledge for application in culturally appropriate and acceptable ways.

Presently, there are nine (9) GEM programs based on the existing strengths and interests of CNR faculty who drive the international programming activities with partners overseas (see Table 2). Other new GEM initiatives, such as sustainable agriculture and food security associated with HIV/AIDS and other disease mitigation, are being launched.

Table 2. GEM Program Priorities

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- Watershed Management
  - Comprehensive Land Use Planning
  - Becoming An Outdoors Woman
  - Ecotourism and Nature Interpretation
  - Rural Leadership and Community Development
  - Sustainable Forestry
  - Conservation and Environmental Education
  - Sustainable Energy Systems
  - Environmental Management Certification and Compliance
- 

Within the above GEM programs, a sampling of GEM efforts underway or planned to contribute demonstrated outcomes during the DESD ahead is presented in Table 3. GEM welcomes additional partners in similar activities in these or other nations.

Table 3. Selected GEM efforts in the Decade of Education for Sustainable Development

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1. US Department of Agriculture Forest Service-sponsored international seminar on watershed management.
  2. US Environmental Protection Agency-sponsored watershed catchment monitoring and water allocation project in S. Africa.

3. US Agency for International Development-sponsored project on dietetics and small garden systems to support medical treatment and food security for families impacted by HIV/AIDS in Kenya.
4. US Department of Agriculture Natural Resources Conservation Service-sponsored community based ecotourism, land use planning and watershed management project in Mexico.
5. US Department of Agriculture Natural Resources Conservation Service-sponsored rural leadership and community development twinning study on water resources in Wisconsin and the Peoples Republic of China.
6. US Department of Education-sponsored international student exchange and internship program between several U.S. and European universities targeting sustainable forestry.
7. US Department of Agriculture Natural Resources Conservation Service-sponsored conservation and environmental sciences educational curriculum development project with teacher exchange between Wisconsin and Puerto Rico.
8. US Department of Agriculture Natural Resources Conservation Service-sponsored GEM Student Ambassador Program providing applied research, internships, and community outreach projects overseas for CNR students that bridge diverse cultures.

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Not only is GEM proactive in natural resources and environmental management education in Wisconsin and overseas, GEM provides a strong vision and leadership in action to promote and implement campus sustainability measures at UWSP. For example, CNR students led a campus-wide student initiative that resulted in the Chancellor's signing the Talloires Declaration at Earth Day ceremonies in April 2003, which demonstrates a commitment to sustainability measures along with hundreds of other universities across the globe. CNR faculty and students are active participants on the UWSP Campus Sustainability Committee, which is working on audits and other actions to move the sustainability agenda forward.

The GEM Environmental Management Certification and Compliance Program will offer ISO 14001 training among other practical benefits to campus. GEM is hosting the 4<sup>th</sup> International Conference on Environmental Management for Sustainable Universities (EMSU 4) in Stevens Point in June 2006. In the planning stages, a new world-class GEM Building on campus will be a true showcase of sustainability. It will feature green architecture and sustainable design aimed at garnering a Leadership in Energy and Environmental Design (LEED) 'Platinum Rating' and will provide state-of-the-art telecommunications for real time access to excellent GEM and partner network programming globally.

GEM, which has at least 10 CNR online courses available currently, is exploring participation in the Global Development Learning Network, established in June 2000 by the World Bank and the World Bank Institute. This entity is a:

- growing partnership of more than 60 learning centers and public, private and non-governmental organizations;
- offering the use of interactive distance learning technologies in the context of development;
- bridging geographical distances, fast and cost-effective; for knowledge sharing, training, consultation, and dialogues on topics relevant to the developing world.

Also, GEM is interested in partnering with The Institute @..., a novel approach to implementing sustainable development policies by providing practical, expert 'how to' training to participants gathered for relevant international meetings. This entity is sponsored by the Smithsonian Institute and the UN Development Programme.

#### GEM PARTNERSHIPS IN BUILDING CULTURAL BRIDGES: FORMULA FOR SUCCESS

For GEM faculty and students involved in international activities, the passion and joy of working on the challenging natural resources issues stems from embracing new friends and colleagues abroad from diverse cultures who have similar passion and commitment to building a better world. Where GEM has succeeded, faculty and students have identified mutual interests with associates overseas and developed a personal rapport and friendship that foster mutual trust, respect and understanding. There is always a strong interpersonal connection that leads to a healthy sharing and exchange of ideas and subsequent joint planning of potential projects of work together. Reconnaissance trips and exchanges of personnel, curricula and other materials help strengthen institutional ties between GEM and its new partner organizations.

The inclusion of citizens in the local community is paramount to success, and this is a cornerstone of GEM activities abroad. 'Twinning studies' promote cultural awareness and appreciation of common problems and culturally appropriate solutions. Building local capacity through training modules, workshops, outreach education and demonstration projects is important to sustain continuity and progress under local control beyond the duration of the GEM collaborative sustainable development projects. Perhaps most significantly, it is important to celebrate together the successes and friendships made during the project activities.



## CONCLUSION

Diversity of thinking leads to innovation and creative solutions in a democratic society with freedom of expression and protection of individual and minority rights. International education promotes exchange of new ideas and multicultural awareness that stimulate diversity of thinking. With pressing global challenges before us, building intercontinental learning bridges for diverse cultures is essential to bring people together working locally to achieve Millennium Development Goals. In the upcoming United Nations Decade of Education for Sustainable Development, educators at all levels and in all nations have opportunity to spark wonder and passion for learning that will kindle a bright flame of growing awareness, hope, and action in the hearts and minds of people to embrace sustainable development.

The Global Environmental Management Education Center is just one example of many excellent and exciting international educational enterprises acting as catalysts of change to instill and act upon hope for the future. GEM and its partners around the world are bridging cultural divides, engaging and celebrating diversity of thinking, and pioneering and applying practical learning methods and technology to solve natural resource problems by linking faculty, students, and citizens worldwide. As the ultimate investment in security in a troubled world, let this be the time for all educators to inspire and empower learners everywhere to build a sustainable future.

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